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The Bulletin

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**National Institute for
Architectural Education**

School Year 1959-1960

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The BULLETIN of the National Institute for Architectural Education invites submission of manuscripts, news items, and notes from students and professionals. The reports of the competitions are presented in the BULLETIN as unofficial opinions of the authors and should not be interpreted as the collective opinion of the evaluating jury. Furthermore, the N I A E cannot be held to account for any statements or opinions printed in magazine.

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PARLEZ-VOUS FRANCAIS? - DEC. 1, 1959

If so, would you be interested in a year's work experience in France?

Three young American architects arrived in Paris in mid-September, while their French colleagues were welcomed to the United States, under the sponsorship of French-American Atlantique Association.

The competition is now open for year 1960-1961, and the deadline for application is December 1st.

Candidates should meet the following requirements:

- 1 Be a graduate of an accredited school of architecture
- 2 Speak French
- 3 Be in good health
- 4 Be interested in International Relations.

The grant will include Health Insurance coverage and a living allowance varying between 80,000 and 120,000 francs a month. Candidates may be eligible for a Fulbright travel grant covering their travel expenses to France and back to United States.

Applications should be requested from:
Miss Yvonne Bourguignon, Executive Director
French-American Atlantique Association, Inc.
972 Fifth Avenue, New York 21, N.Y.

NOTICE OF SEMINAR - JOINT ACSA-AIA COMMITTEE

It is proposed that the summer seminar be held during the second two weeks in June 1960, at Sagamore, a Syracuse University Conference Center, near Raquette Lake in the Adirondacks, sixty miles north of Utica, N.Y.

You are being alerted of this, early in the season in the hope that you may be able to make adequate provision in your budget for helping some appointee from your school who may be approved a one-half expense scholarship. The stipend varies with distance, and is estimated to range from \$125 to \$200, or an average throughout the country for a scholarship paying one-half expenses of about \$175.

HOW TO OBTAIN GRADUATE STUDY FUNDS

"World-Wide Graduate Award Directory" contains complete information on how to obtain graduate study funds, ranging from \$200 up to \$10,000. Over 250 universities and foundations from almost every State, and over 100 foreign universities have sent information to be included in this volume.

Among the awards are many that have gone begging in former years because qualified applicants didn't know about them. This guide to graduate study awards is published annually by The Advancement and Placement Institute to provide the needed communication link between administrators of assistance programs and potential candidates. For further information write to the Institute at Box 99H, Greenpoint Station, Brooklyn 22, N. Y.

"Fellowships in the Arts and Sciences" 1959-60, a second edition published by the Association of American Colleges, 79 Biochemistry Building, The University of Wisconsin, Madison 6, Wisc. contains a guide to the sources of support of graduate study and research at all levels. It is a guide for the college student interested in graduate school; for the graduate student midway in his course of study; for the faculty member finishing a Ph.D.; for the established scholar anticipating leave.

Chapter 1, Advice to applicants for fellowships; Chapter 2, Predoctoral fellowships; Chapter 3, Postdoctoral fellowships; Chapter 4, Senior and faculty awards; Chapter 5, Fellowships for study abroad (all levels); Chapter 6, Summer awards; Chapter 7, Loans; Appendix, Alphabetical listing of awards and bibliography of other publications.

ALUMINUM MANUAL AVAILABLE

"Aluminum Construction Manual" published by the Aluminum Association, 420 Lexington Ave., New York 17, N.Y., 390 pp, 6x9, \$3.00. Reference book for use by engineers, designers, architects and students concerned with the use of aluminum in stressed structures; includes allowable load data for aluminum alloy 6061-T6.

THE CHALLENGE IN TOWN PLANNING

BY GEORGE BEIERS

This is the first of a series of articles on town and regional planning. This article is not meant as criticism of any group but is meant to underline the lack of knowledge of most people in a subject daily becoming more important and the need for educational bodies to take action.

A report of the Rockefeller Brothers Fund states "The Federal Government has assumed important leadership (in development of cities) but far more needs to be done. It is also clear that the initiative for coping with urban growth including urban blight rests with the localities themselves. "This seems rather a laissez-faire attitude and certainly not much more than a statement of the existing unfortunate state of affairs, as it offers no constructive suggestions. The statement ignores the important fact that the localities and individuals referred to do not know what is involved. A case in point, a small town near Detroit was fortunate enough to have a green belt around the center of the town. The green belt is an ideal aimed for in town planning but not always achieved. The town was pressured into selling the green belt as a development, a move which brought immediate financial return to the city, but in the long run meant overcrowding and loss of land values; a move generally against all the proven principles of good town planning.

A recent book "The Exploding Metropolis" published by Time and Life, is very good indication of the lack of knowledge of not only the general public, but of a group of intelligent writers, in the field of town and regional planning. The book attributed to architects the desire for bleak areas of space dotted with gaunt characterless blocks of buildings. This is a concept of thirty years ago, unfortunately still followed in most large scale housing. These characterless developments are not due to architects but due to laws, to quote a director of urban renewal of New York City, "with more concern for the attitude of private real estate investment than for the quality of living that such housing contained or the quality of neighborhood and community that such housing created." The large impersonal blocks referred to in the book are not modern town planning.

The book generally makes a whipping boy of the architect. It should be remembered, however, that architects have been in the lead of those clamoring for proper regional and city development and planning. Architects have been revising their

schemes with experience, but the architects propose and developers dispose. The final say is with the real estate developers and the quality of present day developments is theirs. It is interesting to note that two recent buildings of which New York is most proud, due in no small measure to their generous contribution of space to the city, were built not by New York developers but by two foreign corporations, namely the Lever Building and the Segrum Building. The architects, however are American. It is also interesting to note that crowding around these buildings and taking advantage of their open spaces are developments by banks and speculators taking every inch up to the sidewalks.

The Exploding Metropolis, however is good insofar as it shows an awakening interest by an important section of the press. There are also some very interesting chapters on political and statistical problems involved. The United States has a magnificent system of public highways, and a vigorous program for the future. These highways were only possible because the public realized and understood the need for them. When the American public as a whole understands the need for proper regional and town planning they will have an equally fine planning system. Something can be done only when the general public asks for it, in strong enough terms. The general public will not ask until it knows about and sees the reasons for, proper regional and town planning. Strangely enough a number of the profession perhaps most concerned, know very little about this subject and it is far from being generally taught in architectural schools. Most graduates seem to think town planning is zoning and street layouts, zoning which is far too flexible, street layouts which are not. Recently a Paris Prize Scholar returning from his sojourn in Europe said he was more impressed by the public spaces and piazzas than by anything else. When asked if and how they could be adapted to American cities he said he did not see how it could be done. This marked a singular lack of understanding and initiative in this subject which is fairly typical of the average student.

Perhaps this shortcoming in most of the students is due to their preoccupation with new vogues in buildings and in the techniques of the architect they most admire. It is a preoccupation with glass walls or curved walls, geodesic domes, hyperbolic paraboloids, and so on, all of which while important are more tricks of a trade than the important architectural whole. Another point which has some bearing is that

twenty-five years ago students felt themselves crusaders for Wright, Corbusier, Mies van der Rohe, Neutra, Gropius, and others, but now the designs of these great men are accepted by the general public. Now Corbusier's concepts are seen in the United Nations Buildings, Van der Rohe has delivered his great work on Park Avenue, New York; Buckminster Fuller's geodesic structures are being used by many including the armed services; Yamasaki and Saarinen, Stone, and others are receiving popular acclaim and public commissions. However, the young architect continues to feel the oppressed and misunderstood designer, rather than an architect conscious of many duties to the public. This attitude to some extent is the perennial one of youth to existing ideas and authority but not entirely. As a profession we do not have a reputation for solving the practical requirements of our clients as well as we do our own aesthetic ones or to go still further, we are believed to give more importance to erecting monuments to ourselves. The result is that in problems such as town planning, the architect is passed over for a practical man such as a real estate operator. Architects believe themselves more qualified to do this work than the real estate operator, but the general public obviously in most cases does not. In the recent plan proposed for New York City, the man in charge was a realtor although the bulk of the planning work was done by architects. This view of the architect by the general public is largely due to bad public relations but education of the undergraduates can do much to overcome this situation.

Real estate operators in the realm of town planning are children playing with blocks. The bigger the city the bigger the block. Unfortunately much of the chaos is due to the realtor's belief that development of cities is their prerogative and that any regulating is an infringement of individual rights. This was once the attitude of many farmers instructed to develop land in such a way as to avoid soil erosion. The farmers now see the wisdom of planned development. The erosion in the cities, however, is far more serious, affecting as it does millions of citizens.

Last but not least is the rapid change taking place in cities today, due to new methods of transportation and other technological changes. It is probable that in thirty years cities will be smokeless, automobiles will be noiseless and have no noxious exhausts. Airplanes will take off vertically from small air fields or even roof tops. In spite of all the coordination needed to prepare for phenomenal technical changes

most cities have separate authorities for freeways, parks, transit, services and each of them independent and usually resisting attempts of a planning body to coordinate them with a long range plan. This is due to more than one factor, conflicting interests of powerful bodies is one, but one of the greatest is the lack of education of the public to the need of planning and the lack of trained people able to take on the task. Another factor is the financing aspects. This again comes back again to education. If the need is realized by the public, government funds will be made available just as they are for roads and hospitals. For it must be admitted that the great bulk of the taxpayers live in cities and most of the ones who do not, rely on the cities for many facilities. Cities are very much the Cinderellas of our system. This point is made in a timely editorial in the Architectural Forum devoted to the urgent need for urban redevelopment. However, in the same editorial the criticism of the Federal Government is not strictly fair. As previously quoted from an article by a director of urban renewal, many anomalies are due to the influence of private real estate development. At one moment we criticize Government intervention saying needs should be fulfilled by private investors. However, if private investors do not fulfill requirements the Government is to blame. The Federal Government has to tread carefully to avoid being accused of usurping local government prerogatives. All this serves to underline the need for regional planning coordination.

The same editorial in dealing with the spread to the suburbs does not mention that the main reason people go to the suburbs is because of their children a point well brought out in "The Exploding Metropolis". People are naturally gregarious, but do not want to stay in a city where recreation areas and schools leave so much to be desired. The conditions which have brought about this state of affairs, can, in many ways, be attributed to bad town planning. If modern principles of town planning were applied the spread would reduce. Many suburbanites would much prefer to live in the city if they knew there were good schools and adequate playgrounds for their children, not pitiful small asphalt lots dotted here and there. All these things are part of city and regional planning and yet very little if any is taught below graduate level. Surely a student who may one day find that his interest is more in city planning than design of buildings, should be exposed to some regional planning curriculum at a time in his study when it will do a great deal of good. But to make the enormous scope of this subject a post-graduate study is underestimating one of the pressing requirements of a society daily becoming more complex.

A STATEMENT ON DESIGN

Speaking on "The Design Process" before the 63rd annual meeting of the Michigan Academy of Science, Arts and Letters at Michigan State University, Walter L. Chambers, chairman of the department of landscape architecture at the University of Michigan said, "Design is purposive planning." "The Design process has become increasingly more important to me as an aid in the teaching of landscape architectural construction." He listed six steps in the design process:

- 1) Visualization -realizing the need for an idea;
- 2) Research - gathering information pertinent to the problem or project;
- 3) Analysis - thinking through the information;
- 4) Synthesis - imagining possible solutions;
- 5) Elaboration - perfecting the solution;
- 6) Communication - presentation of the solution.

Professor Chambers said, "All individuals walk around in life - seeing, hearing and touching things. However, the creative individual is one who uses his eyes not only for seeing but for observing, his ears not only for hearing but for listening, and his hands not only for touching but for feeling. He has a heightened awareness of anything that is unusual or promising in the person, material, or condition with which he is dealing."

He stressed sensitivity as a quality which is most useful throughout the whole design process. "The creative individual always exhibits a high degree of sensitivity to problems or to the attitudes and the feelings of other individuals. This capacity of receiving impressions from external elements is indispensable: Experiences and research has indicated that there is no difference between perceptual sensitivity and social sensitivity. This discovery is a significant finding."

Professor Chambers pointed out that the designer must be "fluent" in order to take continuous advantage of the situations as they develop.

"Each completed and refined step in this total process serves as a fresh vantage point from which to plan the next step. Unfortunately, the student and also the experienced designer will, too often, be too rigid or obstinate to take advantage of changes.

"It is this flexibility and the ability to take advantage of changes that can open up entirely new vistas or possibilities. The clever designer has the ability to rearrange ideas, concepts, and even the elements of his design. With this must be ever present the ability to resist premature decisions or preconceived designs."

MODEL APARTMENTS WASHINGTON SQUARE VILLAGE BY STEPHEN KLIMENT

Five model apartments, in the second of three proposed apartment blocks known as Washington Square Village, were unwrapped, if one may use the term for apartments, on 29 July at a cocktail party sponsored by the New York Chapter of the American Institute of Decorators. Five apartments have been designed to suit five hypothetical clients of a type likely to move into the Washington Square Village development. They include a stockbroker, an elderly couple leaving a large home in New Jersey for Manhattan and giving their new apartment the same name as their New Jersey house, only with the prefix "Little," a village (presumably Greenwich) sophisticate, an international collector, and a young divorcee who is an executive of a large store. Her apartment is called "Lilactime." Brief conversations with

designers of some of the apartments disclosed a lively interest on their part in their mythical clients. One went so far as to select his tailor.

An elaborate folder prepared by Carl Erbe Associates, of 595 Madison Avenue, for the occasion, includes a statement by Ruth L. Strauss, President of the New York Chapter of the AID, which says, among other things, that "in this historic area of our great metropolis the designers have achieved interiors in harmony with both the present and the past, fulfilling the living requirements of the discriminating public." It is very difficult to achieve harmony with both the present and the past in one interior, but no one who has seen the apartments can have failed to notice it.

In general the desired effects were sought by the use of vivid colors of a primary hue, with variable value but undoubtedly strong chroma; these were used on floors, ceiling, walls, bedspreads, upholstery, and kitchen furnishings in various combinations and have accounted, in the main, for harmony with the present. Harmony with the past has been brought about by liberal use of objets d'art from a vast range of geographical and historical sources, ranging from a Spanish prayer stool to a presumably genuine sea-chest housing Hi-fi equipment. The double harmony with present and past is occasionally achieved simultaneously, as in Miss Melanie Kahane's "Little Argosy" apartment, where "...four chairs around the dining table ... are copies of French Revolutionary chairs. Two are covered in ruby red nylon viscose; two are covered in rich vibrant purple."

The overall effect upon an observer entering any of the apartments is one of drama. Mr. William Pahlmann, designer of the apartment "Village Sophisticate" denies that white walls are for everyone, but admits the same for dark walls. He has painted his living room a "... dark 'disappearing' brown." Against this "shadowy endlessness" he

uses the following colors: cranberry red, golden yellow, lemon yellow, hyacinth and acid green. Mr. Fred Gerstel in his aptly named apartment "Lilactime" has throughout used shades "ranging from very light lilac to deep purple" in contrast to which the living room floor is composed of Robbins Pompeiian white vinyl, with lilac inserts and a lilac area rug.

Two additional apartments were unfurnished except for a large table a piece laden with a splendid assortment of canapes, and there was a generously stocked bar in each apartment, both through the kindness of the Sponsor. In addition, a part of the first of these two apartments has been set aside for the benefit of those who, after enjoying their inspection of the model apartments, feel the urge to sign a lease.

It is hard to evoke the correct picture with mere words. One must go to Washington Square Village any day between 10 am and 8 pm (5:30 pm on weekends) and see for oneself. It is really the only way. These hours are only for prospective tenants. Interested observers who do not fit this category are allowed in on Mondays and Thursdays for a five hour period beginning at 10 a

LIGHT FOR LIVING

BY HENRY L. LOGAN, Holophane Company, Inc.

When we expand our thinking from "light for seeing" to "light for living" we face the question, is there a natural lighting ideal? Because light is one of the climatic influences we find we must ask the broader question; "Is there an optimum climate for man of which light is one component?"

It can be said that there is no specific optimum, but there is an optimum range, and this range covers temperatures, humidities, air movement rates, lighting levels and distributions, acoustic levels and distributions, invisible radiation levels and distributions, and so forth, suitable for man in all that great variety of states from profound slumber to extreme physical exertion.

Because of the immediacy of the effect of temperature changes they were the first of the climatic components against which man developed

protections. As Markham says: "Man may be the highest product of the animal kingdom, the most intelligent and a superb triumph of evolution, but his control of body temperature is feeble compared to that of many creatures. The bat can survive a change in its own body temperature 60° F. or more, while most animals possess some form of temperature control, from the adjustable feathers of birds to the honeycomb of the elephant's ear serving as an air-cooled radiator for the blood. Many animals can suffer a change of ten degrees in their body temperature without inconvenience, but man must keep his body temperature near 98.6° or die."

This critical interior temperature of man appears to be a crucial phenomenon influencing man's development on this planet - and is a central clue to his probable place of origin.

His origin had to occur at that place (or places) where, as an unclothed, naked animal, external weather conditions were such as to maintain his

internal temperature at the safe level - all day long, all week, all month, all year, and year after year for unknown ages.

Man came without clothes or the knowledge to make them; without fire or the ability to create it; without shelter or the means to construct it. He therefore came where the mean annual climate was tempered to his nakedness, or he could not be here today to tell the tale.

Man's migration from his area of origin has finally covered the earth, but he has been able to do this, not because of any physiological adaptability to the wide range of climatic conditions he has had to survive in, BUT BY MEANS OF HIS INVENTIONS! The invention of clothes (probably just throwing over himself the undressed skins of animals in the beginning), permitted him to begin his ages-long trek. The use of fire helped him to withstand colder climates than he could sustain by clothes alone. Shelter extended still farther, the area in which he could be safe. This is related only to illustrate the fact that man is NOT ADAPTED to the climates of the various regions he occupies. STRIP HIM OF THE PROTECTION OF HIS INVENTIONS AND HE DIES!

Man is still most closely adapted to the climate of his place of origin and he tries to carry that climate with him by means of his inventions, wherever he goes. The entire history of shelter engineering reveals an unremitting effort by mankind to provide itself with an indoor climate that would reproduce as nearly as possible the climate to which man is best adapted, i.e., THE CLIMATE OF HIS PLACE OF ORIGIN.

An examination and correlation of all available researches on this subject point to the neighborhood of the 70° F. annual isotherm as the probable location of man's original habitat, and the range of natural lighting conditions characteristic of this area, along with the range of all the other climatic components, constitute the optimum climate for man. Putting it differently, they constitute the climatic conditions to which man is best adapted.

These are the climatic conditions that man has striven to introduce into his man-made shelters, in fumbling, instinctive fashion, from the beginning. They are the climatic conditions man puts

into his homes, his work places, his trains, his ships, his aeroplanes, his submarines; and they are the climatic conditions he will have to introduce into his rocket ships in order to survive in space.

Man's length of life is related to the degree of success he has had in approaching the optimum degree of indoor climatic composition and control, down through the ages, and in different geographical locations today.

When man began his migration from his place or places of origin, into climatic conditions outside his optimum range of adaptation, his life was drastically shortened. The average age at death of pre-historic man, as far as examination of his skeletons in museums would indicate, was eighteen years.

Man's life lengthened, (that is, he salvaged more and more of the potential life built-in at birth), only as fast as he learned better methods of protecting himself against natural conditions that were outside his optimum range of adaptation.

Early civilizations were all summer economies. When the winter closed in there was little they could do except prepare for spring.

The Romans were the first people to develop an all-year economy that was relatively independent of the weather. They did this by inventing the chimney which permitted them to have year round control of their indoor climate, because they could build weather-proof, heated buildings in which they could continue to work through the winter and continue to carry on year-round manufacturing and trading at fair efficiency. Their discovery of indoor climatic-control disappeared with their eclipse from the world scene and after the collapse of the Roman Empire, Europe returned to the stagnant status of a summer economy.

With the discovery of coal in the twelfth century and the need for a flue to take off its noxious smoke and gases, the chimney was re-invented or re-discovered and again in Italy, (the first modern chimney being erected in Florence). From there it spread all over Europe in about one hundred years even to Lapland. Thus began the great surge forward of the Western World

that has been developing ever since. Europe as a whole went on an all-year economy as a result of the development of indoor climatic controls which permitted continuous indoor work, independent of the weather.

The next great step was the development of cheap artificial light in the 1890's which made a round-the-clock, twenty-four hour economy possible. Our national progress stems from then. In 1890 our population was 75,000,000 and our national income \$14,000,000,000. The two curves of population increase and national income rose at the same rate each decade from the first census in 1790. During that century we were an agricultural, year-round daylight economy, the same as the Romans.

Sixty years later our population had doubled but our national income had increased 1400 per cent, because the adoption of controllable, dependable, cheap artificial light had made it possible to operate our transport, our communications, our services and our production without letup, continuously twenty-four hours of the day. It permitted the development of large concentrated working spaces that were impractical as long as workers had to depend upon daylight, which will not permit satisfactory operation more than about twenty feet from windows. Today, even if optical contact through wall glazing is available in factories, the factories are at all times operated by artificial light and could not be operated any other way. So are most office spaces.

Our present American civilization rose on artificial light and it is still the only civilization in the world that has exploited artificial light to such a great degree. That is one of the reasons why the value of the output of the five per cent of the world's people that live in the United States is 45 per cent of the world's total. If cheap artificial light had not come along we have no reason to believe our national income today would be increasing any faster than it was in 1890 or 1880 or 1870, back to 1790 when the rate of increase was proportional to population increase. On that basis our national income would be about \$28,000,000,000. It is at least ten times that and the difference is largely a measure of the values made possible by the use of artificial light.

A corollary of this situation is that the average life expectancy in the United States today is 69 years (in some particular areas, 73 years), when it was 45 years at the close of the agrarian period in American history.

It is reasonable to suppose that when it is possible to surround people with the ideal environment for all of their activities their life expectancy will equal their built-in potential of 125 to 150 years.

It is clear that the architect has a tremendous part to play in bringing this about, and a responsibility to equip himself so that he can.

The world is built by and for sighted people. If it was for the blind it would be built around the sense of touch. Limited survival is possible with gross environmental controls. Primitive man could live eighteen years with primitive clothing and open fires. The Romans, with their all-year indoor climatic control and better clothing, etc., could average 33 years of life-salvage: (Chinese and Indians today average about 25 years).

Man survives, to whatever degree he does, by protecting himself against natural influences outside the range of his adaptation. He can survive for a short time with slight protection.

The average person in this country spends 33% of his time sleeping, in shelter; 33% at the work-place in shelter; 16% eating, under shelter; 8% going to and from work in closed vehicles; and only 10% of his time exposed to non-artificial environments; and even then he protects himself by keeping an insulating layer of air against his skin by suitable clothing. When he goes on vacation he may throw his precautions aside, often under the false notion that "nature" is good for man. Result, he may get sick or die, like the unfortunate youths on the "Old Man of the Mountain", in New Hampshire, this August.

High life salvage requires much more than the crude control of the grosser environmental influences. To realize his full life potential man must live artificially ENTIRELY, surrounded by complete protections at all times. These protections include such control of the visual environment that sure perception, and safe operation of the involuntary motor and regulatory systems of the body are at an optimum.

Returning specifically to the question in our first paragraph, "Is there a natural lighting ideal?" the answer is "Yes", in the sense that the range of natural lighting conditions that constitute the luminous component of the range of optimum lighting conditions, contain the clue to desirable artificial lighting practice.

An examination of the characteristics of natural lighting distributions under these specific optimum natural conditions has been made, and the manner in which they can be applied to the design of artificial visual environments has been set down in a number of papers, including the following by the writer:

Specification Points of Brightness, 1939, No. 8, 881, I. E. S. Transactions;
The Anatomy of Visual Efficiency, 1941, No. 12, 1057 Illuminating Engineering;
Light for Living, 1947, No. 3, 291, Illuminating Engineering;
Practical Mechanics of Designing Optimum Lighting Patterns, 1948, No. 10, 1233 Illuminating Engineering;
The Evaluation of Visual Comfort Data, 1952 No. 4, 195, Illuminating Engineering.
These are available for study by architects.

THE RARITY -- A NEW THEATER (Quoted from "The Italian Scene")

In spite of what is always referred to as the "crisis of the legitimate stage" (some say it started with Aeschylus), Rome, has a brand new theatre: "Il Teatro della Cometa." It opened in Palazzo Pecci, and theatregoers coming out for a breather in the entre-actes can thus raise their eyes and see before them the stairways leading up to the Capitol Hill and to the Ara Coeli church. Nothing could be more Roman on a starry night.

Countess Pecci Blunt of Rome and New York, began staging theatricals and holding concerts in her house over twenty years ago. Many "firsts" by Stravinsky, Malipiero, Poulenc and Petrassi were introduced by her to small selected Roman audiences at the time. That far back, she toyed with the idea of her small theatre and even started building it. But the war stopped the project.

Recently she called in Architect Buzzi from Milan and picked up the threads where they had

The key place of the architect in this picture is clear. As Gerald B. Ewing says*, "All human responses to architecture are" (caused by data) "received directly and indirectly through the sense of sight. Architectural design therefore depends primarily on a knowledge of light and human reaction to it in all of its physiological and psychological aspects. This criteria must be met before the mechanics of the building construction are determined, as the primary function of architecture - its beginning and end - is the creation of a suitable environment for 'MAN'."

It is no exaggeration to say that architects have played a tremendous part in the progress of the Race; greater than historians have realized. It is also no exaggeration to observe that architects with creative vision, and dedicated to the welfare of Man, are now needed more than ever: architects who can apply the expanding technologies now at their command so as to create environments better fitted to all man's needs and capacities; and also make them agreeable, pleasant, even (hopefully) beautiful!

* "Light, The Basic Element of Architectural Design". Bulletin of the N I A E, October 1958.

been snipped. In a few short months the theatre was ready. Though small (hardly 300 seats) it possesses some of the most up-to-date stage machinery in Rome, and is certainly unique for its setting, its foyers and approaches, and its "court theatre" charm.

With a double order of miniature boxes, the Cometa reminds one of the old Caio Melisso, the smaller of the two theatres in Spoleto in which Menotti staged the minor events of his Two-World Festival. The general aspect, however, is perhaps more brittle and refined, more 18th Century in other words. To enhance the feeling of being in a "private" theatre, sofas take the place of single orchestra seats. The color scheme is champagne gold.

The Cometa opened with a play in keeping with its old-world looks: DeMusset's "Les Caprices de Marianne". But plays to follow will range into ultra-modern and even experimental.

"ACHIEVEMENT IN THE BUILDING ARTS"

The following talks were given at the Architectural League of New York in conjunction with their program for the 61st National Gold Medal Exhibition of the Building Arts. They are reported here as of special interest to students.

THE CLIENT -

Speech given by Morton S. Levin, Vice-President of Barkin, Levin & Co., Inc. on the evening of September 10 at the Architectural League of New York in conjunction with exhibit of the Building Arts.

Although it is certainly a great pleasure for me and for our company to have been invited to address this august body, it is equally humbling and terrifying for a layman to discuss any aspects of architecture before such a critical and knowledgeable audience.

Nevertheless, we are so completely enthusiastic about our project and we are also so emotionally involved, that we find ourselves thrilled to discuss the project with anyone, anywhere, at any time. Thus, we are here and we are afraid you are about to suffer for the next ten minutes or so.

By way of explanation and background, because it is important in understanding the project, let me explain that I represent Barkin, Levin & Co., Inc., which is a firm located in New York City and is a manufacturer and distributor of women's moderately priced coats sold under the Lassie label. The product is widely advertised and is distributed nationally, and is also produced internationally.

The original idea for the construction of a building began at least eight years ago, when it became obvious that it was impossible to contain the bulk of coats, piece goods and all of the associated administrative procedures in one loft ... particularly since the coat industry is located in a high rent and highly congested section of New York City.

However, in order to fully test the capabilities of running our highly centralized business from decentralized locations, we first moved to a separate rented loft and tried to include a few of the departments that would later be housed in the building. It was from this meager intelligence

that we formulated the specific plans for the current building.

Primarily, our problems were as follows. We needed a building of approximately 50,000 square feet located on a single floor ... a structure that would include all of the manufacturing, storage, distributing, shipping and administrative procedures connected with the manufacture of coats. This had rarely been done before in the coat industry ... certainly not to this extent and certainly never in the New York City area.

The matter of locating in New York City posed further difficulties. First, of course, it was extremely difficult to obtain land, but we were fortunate in finding a site in the Astoria section of Long Island City just across the East River from Manhattan. The architectural problems in locating in the city were tremendous. First, there were and are the unbelievable restrictions of archaic and impossible building codes. That is why the so-called "school solution" was to move to low cost construction and low cost labor areas of the south. Our product, however, is highly styled and intricately made, and it was our desire to make maximum use of the great labor skills that exist in the metropolitan area. In addition, we felt that decentralization over great distances was not possible or practicable in our particular business. The matter of labor, however, posed a dilemma. That is to say the labor market which exhibited the skills we needed in New York was getting smaller and smaller -- with the average age of skilled operators and sewers reaching up into the sixties, while the statistics from the various Industrial High Schools indicated that registration in the particular courses necessary to become skilled in our industry were getting smaller and smaller. Thus we turned to architecture to solve the problem of (a) giving our building the look of fashion and thus creating a corporate image of fashion on the outside and (b) attracting young, enthusiastic skillful labor with the same magnetic attraction as an ad specifying "vicinity of Grand Central Station, air-conditioned office" has for the young stenographer leaving High School.

deed, our investigations had shown that the office break and surroundings, that is, all the non-monetary returns of a job were becoming increasingly important and in many cases, serious rivals to the monetary returns.

1 of this boiled down, in our layman language, a question of getting a building that had superb architecture on the inside and the outside. This, however, was not all, because we had (as do a great number of clients) very serious budgetary limitations. Although we are a relatively large firm in the coat industry, in terms of the corporations represented here, we are certainly very small. In addition, the investment in brick and mortar in our industry has been taboo and thus we turned to architecture to present a stylish, highly functional building on a garage structure budget.

is our belief that the whole tone of the project was set by the architect, Mr. Ulrich Franzen, during our first formal meeting; when after having gone over all of the background material and giving the matter careful thought, he summarized the situation by stating that it was possible to get what we wanted by "the judicious use of humble materials." Further, Mr. Franzen felt that while it was, for instance, not possible for us to have acres and acres of immaculately kept and manicured lawns, it was very possible for us to construct and maintain a magnificent garden small and beautiful, that would dominate the area and thus reduce the backgrounds to nothing.

This was the basic idea for the design of the building, and thus, from an exterior point of view, the architecture came rapidly and relatively easy. As you can see, our small garden and the glass enclosed office -- our small jewel that houses the administrative procedures and cafeteria, while the main plant stands in the background beautifully simple and magnificently proportioned -- an all brick structure that majestically towers over our delightful patio.

the concept of the exteriors came easily, the interiors were extremely difficult to create. It had been our experience after visiting a great number of factories (including our own) that the exteriors of most were pleasant and relatively clean, but once inside it became a hodgepodge of confusion, poor lighting, poor ventilation, ill

conceived seating with regard to the sun and interior shapes, and particularly poor house-keeping, due in most cases not to negligence but to impossible conditions.

Our problem was increasingly aggravated by the fact that we did not want a custom built building, but yet we wanted one that fitted our needs to perfection and still was readily adaptable to any standard manufacturing processes, in the event that the building no longer suited our needs. Further, we specified large column spacing to accommodate our distribution, cutting and storage facilities.

This was the problem, and the building pictured here is the result. Of course, the primary question is how successful has the project been?

We feel that architecturally it is a superb solution, one that if we were to start from scratch we would find very little to change. In addition, we feel that our primary objective has been achieved. First, we have increased the efficiency of our manufacturing facilities. Second, we have added stature to our company and its products; and thirdly, we believe we have instilled in our employees a feeling of esprit de corps, a feeling that we expect just a bit more from them and from our products. In fact, we honestly feel that we have created an interior environment where it would be as unnatural for our employees to work in a sloppy manner as it would for someone to put their feet on the table at a formal dinner. We feel that the environment truly prohibits such attitudes.

Before closing, we would like to add one postscript. As you will notice, the main plant is a completely windowless building. You all know, this certainly is the future development of all warehousing and manufacturing operations. Certainly, in air pollution centers such as New York City, windows become nothing more than doorways for dirt, and in a building located in a low building silhouette area, the direct rays of the sun become so menacing that almost 100% of the buildings in Long Island City have resorted to masking their windows with solutions ranging from paint to awkward cardboard covers. In addition, the obvious savings in heat and in air-conditioning are readily apparent. Further, the ease of organizing interiors without windows is considerably easier while the light sources are set up to give

an even, steady unchanging light, which is ideal for close manufacturing. We must confess, however, that the problem of the employees getting used to this environment brought about reactions that we had not anticipated or expected. Our investigations showed that people working at sewing machines, especially on a section work basis, rarely had time to look out of the windows, but the concept of working in an area without windows, (even before we moved in) suddenly became abhorrent to them. So much so, that by the time we moved in there was a great hue and cry against

working in a "dungeon" and it took at least six months for the personnel to become adapted to the new environment. Now that they have, it has become a matter of history and people no longer remember that there was any problem involved. Such are the curious ways of people past, present and future.

That, then is a short synopsis from the layman's point of view of the Barkin, Levin Building. Thank you.

INDUSTRIAL ARCHITECTURE AS A BUILDING ART

BY ULRICH FRANZEN, AIA

The exhibition before us is in a unique sense an illustration of the new image of the dynamic forces in American business and government.

The buildings reflect the many attempts at reflecting a corporate image of a responsible and civic minded company as distinguished from a brand or product image. The many forces that have contributed to this phenomena are too complex to enumerate here. But the result is that the architect has found in business an effective and, if I may say so often well-heeled, collaborator in his most treasured goals. The architect has had the opportunity in certain corporate situations to integrate the entire working environment of executive groups into a visually coherent environment.

With a few notable exceptions this concept of a more coherent and effectively designed working environment is still unexplored territory in industry. The need for it in industry is enormous.

There are probably two major reasons for this lack of progress in industry. One is that industrial planning is primarily in the hands of the package dealer. The package dealer with all his other faults is a volume producer of buildings and cannot stop to think and re-evaluate.

The second is that the great change in executive management techniques has not apparently affected the old fashioned attitudes of the managers of the operations end of most companies.

Here Calvinism still reigns supreme. Green paint on all walls is a frill reserved only for the man who is in charge and after he has labored for twenty years.

The revolution that is occurring in new equipment however, coupled with the ever increasing needs for better relations with the laboring force, demand completely new answers.

Neither the industrial engineer or specialist nor the package dealer are equipped to provide the thinking with perspective in contemporary terms.

In the Barkin, Levin project as well as in other industrial problems we have attempted during the analysis phase of our work to lead the client through the process of looking at the task of manufacturing as an organism not related to any preconceived building volume. This is, of course by now an ancient functionalist technique. Strange as it may seem, present day techniques of plant layout are not geared toward thinking the problem through in the abstract, however.

In our project we had the rather unusual task of introducing the manufacturing procedures of Seventh Avenue to the 20th century. A rare experience in America in terms of the general state of industry today.

This plant in which quality ladies' coats are manufactured established new concepts in the industry by breaking with the medieval proce-

dures of Seventh Avenue. As architects in close collaboration with Mr. Levin, new, and, I might add much needed, concepts in material handling, automation, storage facilities, efficient flow lines, plant furniture and fixtures were developed. The result is the first coat manufacturing plant which houses under one roof the entire manufacture of a coat from the arrival of the cloth to the distribution and shipping of the finished product.

Our labors were in a sense a serious test of the modern architect's basic equipment and attitude. I am convinced that the architect's search today must be for common principles in our architectural thinking, toward some visual diversity within an aesthetic unity.

I don't believe in the hopeless search for a new architectural dish every six months. The pressures exerted for instance by many, including certain architectural publications toward more delight, more sauce and flavoring as an honest expression of the fruits of materialism are in my view major contributions toward the further destruction of the scale of values of our society which is rapidly losing its sense of visual harmony.

Harmony in its basic form is the meaningful relationship of the parts to a larger concept and this can most certainly be applied to an industrial complex and result ipso facto in a better operation.

We discovered and I have verified this in other problems that a worker manipulating equipment, or for instance, running a quality control operation has an easier task and performs more effectively if the equipment is laid out with visual clarity within a real design concept. This is a fact which in retrospect seems so obvious that the general disregard for it in industrial planning is the more astonishing.

I recently walked through a plant with the chief engineer of a major company to acquaint myself in a casual way with the procedures. We found ourselves, at one point, standing in front of an ancient Rube Goldberg-like contraption and I inquired as to its purpose. My guide, the chief engineer, explained that he had only been there five years and summoned the foreman who pleaded that he had worked in this plant for twenty years and his job was to turn the thing off and on.

Mr. Levin and I reached a point in our studies of mechanized equipment particularly where we would abandon proposals submitted simply on the basis that it did not look handsome or right and therefore would not work.

So you may understand how the working stations and working spaces in this plant became as vital a consideration as each piece of equipment, the owner and ourselves became convinced that a spatial unity, a visually coherent and attractive environment is the logical by-product of an efficient operation. We strived for instance, to give each worker through architectural means such as vistas and strong color schemes related to the entire process, a visual sense of being a meaningful part of a larger design.

As for the future of industrial architecture as a building art, I am a bit dubious. Recently a young man from an architectural magazine was sent to me. He had sold his editors apparently on the idea that an ambitious work should be published on the subject of the shape of the industrial building 20-50 years hence, and he came to solicit my view. It so happened that I had just finished a study for a fully automated plant with maximum flexibility for the installation of new equipment at any point. It appears that ideally automated equipment should come with its own weatherproof housing and mechanical systems. Since there will be no manpower but only a control panel run by a few electronics specialists, the plant of the future may well not be a building at all. It may simply become acres of self-contained machines run from an air-conditioned plastic bubble containing a few men in white coats.

Our young friend from the magazine went back to his editors and reported that the industrial building of the future would not be. I understand he has since left the field of architecture as not having enough promise.

HARDWARE · INFORMATION

Stanley Hardware has recently prepared a slide film presentation of hinge selection and application for commercial construction which should be of interest to architectural classes. The showing takes about one-half hour, and accompanying comments are given by one of their sales representatives. Film available on application, to New Britain, Connecticut.

ARCHAEOLOGICAL FIND

Cornell University reports the discovery of two imposing marble statues of a Roman official and his spouse, by the Harvard-Cornell Expedition excavating the ruins of ancient Sardis in Turkey.

The statues were found lying just below the ground under a path leading to the temporary shelter used by the archaeologists. Nearby is the "House of Bronzes," a palatial dwelling of the Early Christian era.

The expedition has also uncovered a luxurious hall with a floor of multicolored marbles and furnishings. A censer (incense burner), a large bronze chandelier and other objects were still lying on the floor. Beyond the hall is a smaller room with an apse and a raised dias.

Professor A. H. Detweiler of Cornell says the area may be in the very center of ancient Sardis and will be important for the study of urban development as well as for the history of Christianity from its early beginnings.

ARCHAEOLOGICAL EXPEDITIONS

BY THE UNIVERSITIES OF MICHIGAN
PRINCETON and ALEXANDRIA

Research undertaken in the summer of 1958 in the remote sixth-century Monastery of St. Catherine below the peak of Mt. Sinai has yielded material unsurpassed in the whole history of Byzantine art, to members of an expedition sponsored by the Universities of Michigan, Princeton and the University of Alexandria, Egypt.

Located 150 miles southeast of Suez in rocky, mountainous and little traveled country, Saint Catherine's is the oldest existing Greek Orthodox monastery. It was founded by Byzantine Emperor Justinian (483-565 A. D.) on the reputed site of "the burning bush" at the base of 5,000 Mt. Sinai where Moses traditionally received the Ten Commandments.

Except for the Church of St. Sophia in Istanbul, once the capital of the Byzantine Empire, St. Catherine's basilica (church) is the best

preserved of the Justinian age and contains part of the interior marble decorations of that period.

Close attention also was paid to the basilica's huge wooden door, one of the few surviving early Christian doors. It was learned that cross beams in the nave of the church had been carved in a style which proves that they also dated from Justinian's name and record the death of his wife, Theodora, thus establishing the date of the church.

A third inscription gives the name of the architect, Stephanos of Aila, on the present Gulf of Aquaba. This signature is unique, because names of architects, although often mentioned in literature, have never before been found in inscriptions dating from Justinian's period.

The centuries-old beams are extremely rare and normally would have been burned or would have decayed long ago. Apparently the dry desert climate helped preserve the timbers, and because the monastery has been respected through the centuries by Mohammedans as well as Christians, it was protected by the followers of both religions.

According to tradition Mohammed received hospitality from the monks and in gratitude gave them a signed guarantee of immunity. Also local Bedouins show visitors the supposed footprint in the rocks of Mt. Sinai left there by the camel on which Mohammed ascended to heaven.

In the Middle Ages a Mohammedan mosque was erected within the monastery walls. It is still open for use by followers of the Prophet.

The ground plans and elevations of the church were measured for the first time. The fortification walls were measured by using a photo theodolite - an extremely precise instrument which facilitated records of great detail.

Ordinarily the instrument is used for surveying mountains, using it for an architectural survey is the first on record. A quantity of four by six glass photographic plates are being calibrated to demonstrate the effectiveness of the theodolite method.

One of the principle results of the expedition has been a complete photographic record of the huge mosaic representing the Transfiguration of Christ and located in the apse of the basilica (above the church altar). This task was accomplished in three weeks through use of an aluminum scaffold four stories high which had been transported across the desert especially for this purpose.

Close range study proved that the great mosaic had never undergone a major restoration and that it is unspoiled. It was found to have been executed in the most refined technique - probably in the foundation period under Justinian, or shortly thereafter.

The only other comparable expedition to the monastery was conducted several years ago when the Library of Congress placed on microfilm the texts of about 2,000 of the more than 3,000 manuscripts known at the site. Until the present project, however, no thorough studies had been made of the architecture and art treasures.

Large color photos and architectural drawings have now been obtained which reveal beautifully preserved mosaics, frescoes, hundreds of icons, the basilica, refectory decorated with the coats of arms of the Crusaders, and manuscripts in Greek, Syriac, Georgian, Arabic, and Slavonic, many of them illustrated with miniature paintings.

A third phase of the study involved icons in the monastery which number from 1,200 to 2,000 sacred paintings. The world's richest and most important collection of icons is to be found at Mt. Sinai.

It is the only place where icons between the sixth and eighth centuries are preserved in appreciable numbers in addition to those of the so-called Middle Byzantine Period from the ninth to twelfth centuries which also are extremely rare.

Apparently the tradition never ceased, for later periods we have comparable material in other museums, but with Mt. Sinai material one can now write a complete history of icon painting. According to our present judgment

only a part of the icons were painted at Mt. Sinai. The majority were obviously gifts from other parts of the Greek Orthodox world.

A large collection is stored on book shelves in the old library, while others are kept in the basilica, some in separate side chapels, many of which are still used in the services.

Some twenty years ago a new library was built of concrete to which all of the manuscripts were transferred. This library contains a room in which about 100 of the best pictures are kept. The room is designated in the English language as the "Picture Gallery".

NEW TILE DEVELOPMENT

Dr. Herman B. Wagner, Director of Chemical Research for the Tile Council of America was honored by The Glycerine Producers' Association for his development of a glycerine-containing mortar for setting ceramic tile. The new mortar employs glycerine as an additive for extending the working life of tile setting compositions. As a result, working time of the modified portland cement mixture has been extended by almost thirty minutes. Thus the serious problem of fast set in normally warm climates and during summer months has been eliminated.

Unlike previously used mortars which required extremely wet conditions, thick and generally multiple layers, and could not be applied over porous surfaces without presenting serious problems, the new modified glycerine-containing mortar developed by Dr. Wagner can be used under dry conditions and can be successfully applied even over porous substrates such as gypsum wallboard or plaster. The cured mortar is characterized by high bond strength and superior hardness and is unaffected by the atmospheric conditions in which it is applied.

PLANS FOR LIBRARIES

"Plans for New Public Library Buildings" this book appears as number 8 in the series, "Public Library Reporter" formerly published by the Public Libraries Division of the American Library Association, 50 East Huron Street, Chicago 11, Illinois.

The new book reports a series of special meetings on public library architecture held at the A. L. A. annual conference in San Francisco in 1958, under the auspices of the Library Administration Division of the American Library Association. In it, librarians and architects discuss the problems they met in six recent public library buildings, and analyze their solutions. Each of the six new libraries is illustrated with its complete floor plan, and such details as cost, size of collection and population served are included.

REYNOLDS METALS NEW BUILDING

The Reynolds Metals Company have had many requests for information on their new General Office Building in Richmond, Virginia. The company has therefore, selected ten 35 mm color slides for a brief visual presentation, to accompany an article in the AIA Journal on this building, prepared by Thomas K. FitzPatrick, FAIA, Dean of the University of Virginia, School of Architecture.

The Company extends an invitation to any member of the faculty or students traveling in the vicinity to take the opportunity to be shown thru building.

WOODWORK INFORMATION

The American Woodwork Institute, 332 South Michigan Ave., Chicago, Illinois, wants to make available to faculties and students a comprehensive presentation on the general subject "The use of Wood in Architecture."

The presentation consists of an illustrated lecture, augmented by meaningful literature, and samples of some of the species under discussion, followed by a question and answer period. Time-wise, they can tailor the presentation to the requirements of a lecture period or periods, a laboratory session, or a "free period". Presentations are adjusted according to the particular course in which student auditors may be interested.

The Institute will be very glad to visit schools sometime during the year 1959-1960, if provided with an approximate date or dates, pending the actual organization of classes.

ARCHITECT AND HOUSE BUILDER COORDINATION

The American Institute of Architects Home Building Industry Committee is working out means by which architects and home builders can work together better and produce better houses. One of the devices which the Committee thinks would be particularly good would be to teach more courses in the home building industry and real estate in the colleges.

A list of schools teaching Light Construction Home Building, Distribution of Building Materials and Real Estate is being prepared, with the idea of promoting these courses in architectural schools and colleges. The Committee would welcome comments from interested colleges.

INTER-AMERICAN ARCHITECTURAL SYMPOSIUM

On January 29, 1959, a unique attempt at cultural exchange between the United States and Latin America was made. It was the first Inter-American Architectural symposium and it was held by radio-telephone between Toledo, Ohio and Bogota, Colombia.

An interesting and informative transcript of the proceedings are available in a most attractive booklet obtainable from the Owens-Corning Fiberglass Corporation, Toledo 1, Ohio.

COMPETITIONS - NIAE

The Fall Term competitions are now in progress. Exercises in architectural design, executed in any ten consecutive days prior to January 11, 1960.

Judgment of entries and award of prizes to take place January 20, 1960.

Subjects for competition:

Elementary Problem - "An Exercise in Light, Color and Form"

Intermediate Problem - "A Concert Hall-Recital Center"

Advanced Problem - "Forecast for Ellis Island as a Project"

The following prizes will be awarded: Architectural Record Prize, Emerson Memorial Prize, and the S. A. D. G. Groupe Americain Prize.

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